



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Cashman Fluids Analysis

600 Glendale Ave.
Sparks, NV 89431

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 15 April 2021
Certificate Number: L2203



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Cashman Fluids Analysis

600 Glendale Ave.
Sparks, NV 89431
Misty Bickerdyke
775-332-2438

TESTING

Valid to: **April 15, 2021**

Certificate Number: **L2203**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Viscosity	ASTM D445	Lubricants and fuels	Viscometer
Particle Count	ASTM D7596 ISO 4406	Lubricants and fuels	Laser Net Fines
In-Service Oil Condition Monitoring	ASTM D7418 ASTM E2412 Cat-JOAP	Lubricants and fuels	Fourier Transform Infra-Red Spectrometer
Detection of Glycol-Base Antifreeze	ASTM D2982	Lubricants	Periodate and Indicator Test Tablets
Water Concentration	ASTM D6304	Lubricants and fuels	Karl Fischer Titration, Procedure C
Metals Concentration	ASTM D5185	Lubricants and fuels	Inductively Coupled Plasma
Total Acid Number	ASTM D664	Lubricants and fuels	Titration
Total Base Number	ASTM D4739	Lubricants	Titration
Water Contamination	SOP 745	Lubricants	Hot Plate
Methanol Insolubles	SOP 719	Lubricants	Centrifuge
Physical Contaminants	SOP 729	Lubricants and fuels	Filter Patch
Fuel Dilution for In-Service Engine Oils	ASTM D7593	Lubricants	Gas Chromatograph
Determination of Glycol for In-Service Engine Oils	ASTM D7922	Lubricants	Gas Chromatograph

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Conductivity	SOP 696	Coolants	Conductivity Meter
pH	SOP 728	Coolants	pH Meter
pH	ASTM D1287	Coolants	pH Meter
Freezing Point	ASTM D3321	Coolants	Refractometer
Nitrite Concentration	SOP 701	Coolants	Titration
Molybdate Concentration	SOP 700	Coolants	Test Strip
Ferrous Index	SOP 725	Lubricants, fuels, and coolants	pqL
Flash Point	ASTM D93	Fuels	Pensky-Martins Closed Cup Tester
Copper Corrosion	ASTM D130	Fuels	Copper Strip Test
Carbon Concentration	ASTM D4530	Fuels	Carbon Residue Micro Method
Sulfur Concentration	ASTM D5453	Lubricants and Fuels	UV Fluorescence
Pour Point and No Flow Point	ASTM D7346	Lubricants and Fuels	Pour Point Analyzer
Cloud Point	ASTM D7689	Fuels	Cloud Point Analyzer
Cold Filter Plug Point	ASTM D6371	Fuels	Cold Filter Plug Point Analyzer
Glycerin Concentration	ASTM D6584	Fuels	Gas Chromatograph
Distillation Temperatures	ASTM D2887	Fuels	Gas Chromatograph
Oxidation Stability	EN 15751	Fuels	Modified Rancimat Method
Bio Diesel Content	ASTM D7371	Fuels	Fourier Transform Infra-Red Spectrometer
API / Specific Gravity	ASTM D1298	Lubricants and Fuels	Hydrometer
Water and Sediment	ASTM D2709	Fuels	Centrifuge
Cold Soak Filtration Test	ASTM D7501	Biodiesel	Cold Soak Filtration Test
Methanol Concentration	EN 14110	Biodiesel	Gas Chromatograph

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Metals Concentration	SOP 800	Lubricants and fuels	Rotrode Filter Spectroscopy
Metals Concentration	SOP 4614	Lubricants and fuels	Rotating Disc Electrode
Measurement of Lubricant Generated Insoluble Color Bodies	ASTM D7843	Lubricants	Membrane Patch Colorimetry

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2203.



R. Douglas Leonard Jr., VP, PILR SBU

